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**From:** Orme-Zavaleta, Jennifer [Orme-Zavaleta.Jennifer@epa.gov]  
**Sent:** 12/10/2018 3:58:22 PM  
**To:** Dunn, Alexandra [dunn.alexandra@epa.gov]  
**Subject:** FW: Can pfas be destroyed thermally?

May also help. Let me know of any other questions and can followup with this group

Jennifer Orme-Zavaleta, PhD  
Principal Deputy Assistant Administrator for Science  
Office of Research and Development  
US Environmental Protection Agency  
Cell 919-699-1564  
DC 202-564-6620  
RTP 919-541-2283

-----Original Message-----

From: Ryan, Jeff  
Sent: Wednesday, November 7, 2018 2:45 PM  
To: Gullett, Brian <Gullett.Brian@epa.gov>; Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>  
Cc: Speth, Thomas <Speth.Thomas@epa.gov>  
Subject: RE: Can pfas be destroyed thermally?

I am really only aware of 3 sources where emissions tests have been performed. The Chemours facilities in NC and WV which only looked at GenX - the processes were not high temperature; and the NH fabric coating test where we were actively involved. While temperatures were higher (<700 F), thermal destruction was not the objective. Activating the polymer was.

-----Original Message-----

From: Gullett, Brian  
Sent: Wednesday, November 07, 2018 2:32 PM  
To: Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>  
Cc: Speth, Thomas <Speth.Thomas@epa.gov>; Ryan, Jeff <Ryan.Jeff@epa.gov>  
Subject: Re: Can pfas be destroyed thermally?

I'm only aware of the very limited and recent data we took with NH. Industry and NC State have limited data from Chemours.

Brian Gullett, Ph.D.  
ST Senior Research Engineer  
U.S. EPA Office of Research and Development RTP, NC  
919-541-1534 ofc

> On Nov 7, 2018, at 2:26 PM, Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov> wrote:

>

> Is there information on monitoring-of pfas from incinerators emissions?

>

> Jennifer Orme-Zavaleta, PhD

> Principal Deputy Assistant Administrator for Science Office of

> Research and Development US EPA Cell 919-699-1564 DC 202-564-6620 RTP

> 919-541-2283

>

>> On Nov 7, 2018, at 2:25 PM, Gullett, Brian <Gullett.Brian@epa.gov> wrote:

>>

>> Yes, they can be destroyed. I believe there is one old paper by Phil Taylor at UDRI that discusses thermal stability.

>> If you need to know him more let me know and I will look it up.

>>

>> Brian Gullett, Ph.D.

>> ST Senior Research Engineer

>> U.S. EPA Office of Research and Development RTP, NC

>> 919-541-1534 ofc

>>

>>> On Nov 7, 2018, at 2:21 PM, Speth, Thomas <Speth.Thomas@epa.gov> wrote:

>>>

>>> Jennifer,

>>>

>>> Sorry, just got out of some meetings. I'm sure the RTP people have that. I will cc them.

>>>

>>> Tom  
>>>  
>>> Thomas F. Speth, Ph.D., P.E. (Ohio)  
>>> Associate Director for Science  
>>> National Risk Management Research Laboratory  
>>> U.S. Environmental Protection Agency  
>>> 26 West Martin Luther King Dr.  
>>> Cincinnati, OH 45268  
>>> (513) 569-7208 Office  
>>> (513) 658-1056 Cell  
>>> (513) 487-2543 Fax  
>>> Speth.Thomas@epa.gov  
>>>  
>>>  
>>> -----Original Message-----  
>>> From: Orme-Zavaleta, Jennifer  
>>> Sent: Wednesday, November 07, 2018 11:03 AM  
>>> To: Speth, Thomas <Speth.Thomas@epa.gov>  
>>> Subject: Re: Can pfas be destroyed thermally?  
>>>  
>>> Any monitoring data from incinerators for pfas?  
>>>  
>>> Jennifer Orme-Zavaleta, PhD  
>>> Principal Deputy Assistant Administrator for Science Office of Research and Development US EPA Cell  
919-699-1564 DC 202-564-6620 RTP 919-541-2283  
>>>  
>>>> On Nov 7, 2018, at 10:09 AM, Speth, Thomas <Speth.Thomas@epa.gov> wrote:  
>>>>  
>>>> Jennifer,  
>>>>  
>>>> Yes, but it is likely the temperatures need to be very high. There is a tradeoff between destroying  
them (and then what is the final product - probably HF acid) and just releasing them to the offgas.  
Either way, some type of scrubber will be needed.  
>>>>  
>>>> We are talking with Calgon and Evoqua to do a study on thermal reactivation of PFAS-laden activated  
carbon. Hopefully, we can glean some information.  
>>>>  
>>>> Tom  
>>>>  
>>>> Thomas F. Speth, Ph.D., P.E. (Ohio)  
>>>> Associate Director for Science  
>>>> National Risk Management Research Laboratory U.S. Environmental  
>>>> Protection Agency  
>>>> 26 West Martin Luther King Dr.  
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>>>> Speth.Thomas@epa.gov  
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>>>>  
>>>> -----Original Message-----  
>>>> From: Orme-Zavaleta, Jennifer  
>>>> Sent: Wednesday, November 07, 2018 9:54 AM  
>>>> To: Speth, Thomas <Speth.Thomas@epa.gov>  
>>>> Subject: Can pfas be destroyed thermally?  
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>>>>  
>>>> Jennifer Orme-Zavaleta, PhD  
>>>> Principal Deputy Assistant Administrator for Science Office of  
>>>> Research and Development US EPA Cell 919-699-1564 DC 202-564-6620 RTP  
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